

**Amendments to the Drawings**

The attached sheets of drawings includes changes to FIGS. 2, 3, 5-14, and 17-19.

These sheets replace the original sheets of drawings. No new matter is added thereby.

Attachment: Replacement sheets.

### **Remarks**

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and the following remarks. Claims 1-35 are pending. No claims have been allowed. Claims 1, 3, 11, 13, 34, and 35 are independent.

#### ***Amendments under Article 19***

Applicants timely submitted amendments adding new claims during the international phase of prosecution. However, the amendments seem to have not been acknowledged in the file wrapper. Rather than belabor the point, Applicants simply add new claims in the present amendment.

#### ***Objection to the Drawings***

Applicants acknowledge the objection to drawings 2, 3, 5-14, and 17-19 and submit corrected drawings herewith. Text from the drawings has been incorporated into the specification. No new matter is added thereby.

#### ***Objection to the Brief Description of the Drawings***

Applicants acknowledge the objection to Brief Description of the Drawings and have added appropriate text via a replacement section. No new matter is added thereby.

#### ***Objection to Hyperlinks***

The Action objects to the use of hyperlinks at page 28, lines 29-30. Applicants have removed the reference to the websites and moved the Bishop reference (originally at page 29, line 31) in place of the websites to preserve consecutive numbering. The reference to items 13 and 26 has been changed accordingly in the Detailed Description.

***Cited Art***

The Action cites Balagurunathan et al., Proceedings of SPIE 4266: 163 (2001) (“Balagurunathan”).

The Action cites Duggan et al., Nature Genetics Suppl. 21:10 (1999) (“Duggan”).

The Action cites Chen et al., J. Biomedical Optics 2 (4), 364 (1997) (“Chen”).

***Patentability of Claims 1-11 over Balagurunathan under § 102(a)***

The Action rejects claims 1-11 under 35 U.S.C. § 102(a) as being anticipated by Balagurunathan. Applicants have investigated the reference and found that it is the inventors’ own work. Accordingly, Balagurunathan does not qualify as prior art under § 102(a). Enclosed is a Declaration under 37 C.F.R. § 1.132 from named inventor Edward Dougherty establishing that Balagurunathan is derived from the inventors’ own work.

***Patentability of Claims 1-11 over Duggan under § 102(b)***

Claims 1-11 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Duggan. However, as understood by Applicants, Duggan does not describe generating a “simulated microarray image” as recited by independent claims 1 and 3. For clarification, Applicants have amended claim 12 to recite “simulated microarray,” which is not described by Duggan. Accordingly, claims 1, 3, and 12 and their dependent claims, 2, 3-11, and 13 are allowable over Duggan.

Because Duggan does not describe every feature of the claims, Applicants request that the § 102(b) rejections be withdrawn.

***Patentability of Claims 1-11 over Chen under § 102(b)***

Claims 1-12 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by Chen. Although Chen does describe image processing, a probability density function of ratio parameters, confidence intervals, and maximum-likelihood estimation, as understood by Applicants, Chen fails to describe a “simulated microarray image” as

recited by independent claims 1 and 3. For clarification, Applicants have amended claim 12 to recite “simulated microarray,” which is not described by Chen. Accordingly, claims 1, 3, and 12 and their dependent claims, 2, 3-11, and 13 are allowable over Chen.

Because Chen does not describe every feature of the claims, Applicants request that the § 102(b) rejections be withdrawn.

### ***Patentability of New Claims***

Applicants have amended the claims by adding new claims 14-35, which find support in the Application as filed. The new claims are also allowable over Duggan and Chen at least because they recite “simulated microarray image.”

### ***Common Ownership***

The Action requests an indication of common ownership for purposes of § 103(a) and § 103(c). However, no § 103 rejection has yet been made, so there does not appear to be an issue regarding common ownership. The Application is currently assigned to two different entities.

### ***Request for Interview***

If any issues remain, the Examiner is formally requested to contact the undersigned attorney prior to issuance of the next Office Action in order to arrange a telephonic interview. It is believed that a brief discussion of the merits of the present application may expedite prosecution. Applicants submit the foregoing formal Amendment so that the Examiner may fully evaluate Applicants’ position, thereby enabling the interview to be more focused.

This request is being submitted under MPEP § 713.01, which indicates that an interview may be arranged in advance by a written request.

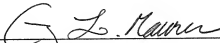
***Conclusion***

The claims in their present form should now be allowable. Such action is respectfully requested.

Respectfully submitted,

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